SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Differentiate photochemical and thermal reactions by production of radicals.

17. Explain the mechanism of following reactions:
    (a) Wolf-Kishner reduction.
    (b) MPV reduction.
    (c) Bouveault – Blac reduction.

18. Write a note on:
    (a) Favorskii rearrangement.
    (b) Fries rearrangement.
    (c) Benzidine rearrangement.

19. Describe the mechanisms of addition reactions involving double and triple bonds.

20. Write the applications of:
    (a) N-bromosuccinimide
    (b) Trifluoroacetic acid
    (c) Lithiumdiisopropylamine.

———————

Shanmuga Industries Arts & Science College T.V.Malai

APRIL/MAY 2024

23PCH21 — ORGANIC REACTION MECHANISM – II

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

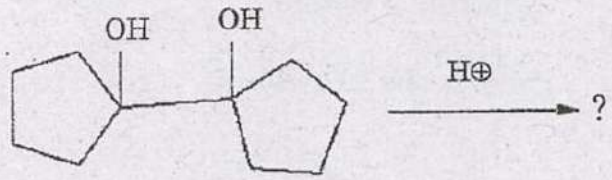
1. State Hoffmann rule.

2. Mention any two characteristics of free radical reaction.

3. What is oxidative coupling reaction?

4. Write the applications of DMSO.

5. Find the product.



6. Differ inter and intramolecular rearrangement.

7. What is meant by peroxide effect?

8. Write the structure of Wittig reagent.

9. Mention Wohl-Zigler bromination.

10. Write resonance forms of diazomethane.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) How will you differentiate between E_2 and E_1 CB mechanism? Explain with examples.

Or

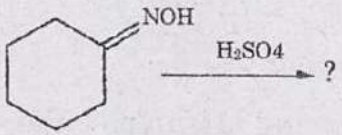
(b) Mention the stereochemistry of eliminations in acyclic and cyclic systems and also write pyrolytic elimination.

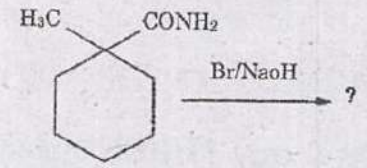
12. (a) Explain the rote of potassium permanganate in oxidation of alkene, alkyne and alcohols.

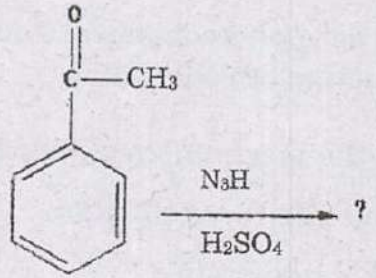
Or

(b) Discuss the mechanism of oxidation reactions using selenium dioxide and osmium tetroxide.

13. (a) Predict the product.

(i) 

(ii) 

(iii) 

Or

(b) Demonstrate Baeyer-Villiger oxidation with mechanism and applications.

14. (a) Explain Mannich reaction with suitable mechanism.

Or

(b) Illustrate Stobbe condensation with its applications.

15. (a) Write briefly about Baylis-Hilman reaction.

Or

(b) Give the applications of Heck and Negishi reactions.